



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/569,169	02/27/2006	Markus Hame	60,469-255;5304	8609
64779 7590 11/09/2009 CARLSON GASKEY & OLDS 400 W MAPLE STE 350 BIRMINGHAM, MI 48009				
EXAMINER				
SINGH, KAVEL				
ART UNIT		PAPER NUMBER		
3651				
MAIL DATE		DELIVERY MODE		
11/09/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/569,169

**Applicant(s)**

HAME ET AL.

**Examiner**

KAVEL P. SINGH

**Art Unit**

3651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 August 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-15 and 18-26 is/are rejected.
- 7) ☒ Claim(s) 6, 16 and 17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/S508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments filed 8/10/09 have been fully considered but they are not persuasive. Applicant argues that Kraft does not teach having at least one drive member that follows around a plurality of wheels, but Kraft discloses modular drive units 44,46, and 48 includes a drive motor and gear reducer operably linked to sprocket wheels (no reference number given) and chains (including wheels 38,58) which engage the toothed step link 30 (C3 L61-64). Applicant argues that it is not possible to construe the drive unit 44 as a drive member that follows a path around a plurality of wheels. Drive unit 44 drives the sprocket wheels which in turn cause the chain with wheels 38,58 connected with guide track 40. Therefore Kraft teaches the drive unit to follow or as defined by Webster's dictionary to ensue or result (causing the motion) around the path of the escalator. For the foregoing reasons, the claims stand rejected.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5,7,8,11,13-15,18-20,2425, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kraft U.S. Patent 4,397,096 in view of Saito U.S. Patent No. 5,135,097.

Claim 1, Kraft teaches having at least one drive member (40,44) that follows a path around a plurality of wheels (38,58, sprocket wheels) C3 L63-65, comprising: determining whether selected wheels (38,58, sprocket wheels) C3 L63-65 rotate at the same speed by using the rotary encoder (35) of Saito. It would be obvious of one of ordinary skill to use the monitoring device of Saito into the invention of Kraft in order to add additional safety to the conveyor.

Claim 2, Kraft does not teach as Saito teaches activating a brake (34) responsive to determining that the wheels (38,58, sprocket wheels C3 L63-65 of Kraft) rotate at a different speed. It would be obvious to one of ordinary skill to use a brake activation of Saito into the invention of Kraft in order to add additional safety to the conveyor.

Claim 3, Kraft teaches there are at least two drive members (44,46) each associated with a deflection wheel (38,58, sprocket wheels) C3 L63-65 and the method includes determining whether the deflection wheels (38,58, sprocket wheels) C3 L63-65 rotate at the same speed by using the rotary encoder (35) of Saito. It would be obvious to one of ordinary skill to use the monitoring device of Saito into the invention of Kraft in order to add additional safety to the conveyor.

Claim 4, Kraft teaches there are two drive members (44,46) each associated with a drive wheel (See Fig. 1) and a deflection wheel (38,58, sprocket wheels) C3 L63-65, the drive wheels (Fig. 1) synchronously rotating, and the method includes determining whether either deflection wheel 38,58 rotates at the same speed as the drive wheels (via 35 of Saito). It would be obvious of one of ordinary skill to use the monitoring device of Saito into the invention of Kraft in order to add additional safety to the

conveyor.

Claim 5, Kraft teaches the member (44,46) is associated with a drive wheel (Fig. 1) and a deflection wheel (38,58, sprocket wheels) C3 L63-65 and the method includes determining whether the deflection wheel (38,58) rotates at the same speed as the drive wheel (Fig. 1) by using the rotary encoder (35) of Saito. It would be obvious to one of ordinary skill to use the monitoring device of Saito into the invention of Kraft in order to add additional safety to the conveyor.

Claim 7, Kraft teaches a plurality of drive wheels (Fig. 1); a corresponding plurality of deflection wheels (38,58, sprocket wheels) C3 L63-65; a drive member (44,46) associated with each drive wheel (Fig. 1), each drive member (44,46) following a path around the associated drive wheel (44a,44b) and at least one corresponding deflection wheel (48a,48b); and a monitor device (35 of Saito) associated with selected ones of the wheels (38,58, sprocket wheels) C3 L63-65 that provides an indication of relative rotation between the selected wheels. It would be obvious to one of ordinary skill to use the monitoring device of Saito into the invention of Kraft in order to add additional safety to the conveyor.

Claims 8,15,18, and 19, Kraft does not teach as Saito teaches the monitor device (35) includes a first rotating member (22) coupled to rotate with a first one of the selected wheels (38,58, sprocket wheels C3 L63-65 of Kraft) and a second rotating member (20 of Saito) coupled to rotate with a second one of the selected wheels (38,58), the first and second rotating members (20,22 of Saito) moving relative to each other responsive to relative rotation between the selected wheels (38,58, sprocket wheels) C3 L63-65. It

would be obvious to one of ordinary skill to use the rotating members of Saito into the invention of Kraft in order to allow ease of rotation of the driven and deflection wheel.

Claim 11, Saito teaches one of the rotating members (20,22) is axially fixed and the other rotating member (20,22) is biased into a first axial position and wherein relative rotation between the rotating members (20,22) causes the other rotating member (20,22) to move axially against the bias. It would be obvious to one of ordinary skill to use the rotating members of Saito into the invention of Kraft in order to allow ease of rotation of the driven and deflection wheel.

Claims 13 and 14, Saito teaches a brake actuator (34) associated with at least one of the rotating members, the actuator being operative responsive to axial movement of at least one of the rotating members (20,22). It would be obvious to one of ordinary skill to use the rotating members of Saito into the invention of Kraft in order to allow ease of rotation of the driven and deflection wheel.

Claim 20, Saito teaches a first rotating member (52) for rotating at the same speed as a first selected wheel (38, 58 of Kraft); a second rotating member (56) for rotating at the same speed as a second selected wheel (38,58, sprocket wheels C3 L63-65 of Kraft), the first and second rotating members (52, 56) changing position relative to each other responsive to relative rotation between the wheels (44, 46).

Claim 24, Saito teaches a step chain associated with a plurality of steps (8) and wherein drive member (21) comprises a belt (20) between each drive wheel (22) and step chain (8). It would be obvious to one of ordinary skill to use a step chain of Saito into the

invention of Fargo to connect the driven and deflection wheel into the invention of Kraft in order to.

Claim 25, Saito teaches an indication of a condition of at least one drive member (44 of Kraft) responsive to the determining (35) (C3 L60-64).

Claim 26, Kraft does not teach as Saito teaches positioning a monitor device (35) between the selected wheels (44a,44b of Fargo) and using the monitor device for the determining .

Claims 9,10,12, and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kraft U.S. Patent 4,397,096 in view of Saito U.S. Patent No. 5,135,097 in view of Reinsma U.S. Patent 3,854,345.

Claims 9,10,21, and 22, Saito teaches the first and second rotating members (20,22), but does not teach as Reinsma teaches bushings (22) having engaging faces (12) that cooperate to cause axial movement of at least one of the bushings responsive to relative rotation between the bushings (C2 L55-60). It would have been obvious to one of ordinary skill in the art at the time of the invention to use a monitor system to use bushings to engage faces during movement as taught by Reinsma into the invention of Kraft to reduce the amount of noise produced from the system..

Claims 12 and 23, Saito teaches rotating members, does not teach as Reinsma teaches a spring (30) that biases the other rotating member (14) into the first axial position (C3 L47-50). It would have been obvious to one of ordinary skill in the art at the time of the invention to use a monitor system to use springs to align the rotating members during

movement as taught by Reinsma into the invention of Kraft to maintain the alignment and reduce wear.

***Allowable Subject Matter***

Claims 6,16, and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ms. Kavel P. Singh whose telephone number is (571) 272-2362. The examiner can normally be reached on M-F 8:30-5.



If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Crawford can be reached on (571) 272-6911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KPS

/Gene Crawford/  
Supervisory Patent Examiner, Art  
Unit 3651